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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,692	04/02/2004	David Weck	609-034	9732

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ALEXANDRIA, VA 22314

EXAMINER

JOYNER, KEVIN

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8

<b>Office Action Summary</b>	<b>Application No.</b> 10/815,692	<b>Applicant(s)</b> WECK ET AL.	
	<b>Examiner</b> Kevin C. Joyner	<b>Art Unit</b> 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6-8, 17-22, 27, and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 6 recites the limitation "the spray" in line 1. There is insufficient antecedent basis for this limitation in the claim. Since claims 7 and 8 are dependant upon claim 6, then they are rendered indefinite as well.
4. Claim 17 recites the limitation "the spray" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim. Since claims 18-22, 27, and 28 are dependant upon claim 17, then they are rendered indefinite as well.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kalman (Publication No. DE 19844864A1).

Kalman discloses in the abstract a method of reducing the odor emanating from a feces deposited by a human making a bowel movement in a toilet, comprising the step of spraying a liquid deodorizer to the toilet immediately prior to making the bowel movement. More specifically, since one of the advantages of the step is the reduction of water splashes, then it is known to take place immediately prior to making a bowel movement. Regarding claim 3, Kalman also discloses that the liquid is sequentially applied three or more times as a spray. More specifically, the limitations of the claim do not require three sprays before each use. The method of Kalman requires the method to be used before the use of the toilet. Therefore, when the toilet has been used three or more times causing the method to be used three or more times, then the limitations of the claim is met.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3, 6, 7, 9, 10, 23, and 24, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalman (Publication No. DE 19844864A1).

Kalman is relied upon as set forth above. Claims 6, 7, 9, 10, 24, and 25, further requires that the spray consist primarily of spherical droplets having a maximum surface area of about  $78 \times 10^{-12} \text{ m}^2$  or a maximum diameter of about 0.0025mm. It would have been well within the purview of one of ordinary skill in the art to optimize surface area as

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well as the diameter of the droplets in order to maximize the deodorization process. Only the expected results would be attained. Regarding the spherical shape, all spray containers spraying a liquid will spray droplets in a spherical shape due to the force of gravity. In regards to claim 3, it is first noted that while Kalman does not specifically disclose the number of times the liquid is sprayed, Kalman does disclose that the spray be applied in such a way that it covers the entire surface of the water. Therefore, the number of sprays is dependent upon the size of the toilet, the amount of liquid sprayed, the distance from the spray bottle to the bowl, etc. One of ordinary skill in the art would readily recognize that multiple sprays would be required to completely cover the entire surface of the water. Furthermore, it is well known in the art of deodorizing that applying the same spray more than once increases the odor reduction and it is well within the purview of one of ordinary skill in the art to apply this spray as many times as they feel necessary in order to achieve an acceptable level of deodorization. Therefore, it would have been well within the purview and thus obvious for one of ordinary skill in the art to spray the liquid three or more times in the method of Kalman in order to increase the efficiency of reducing the odor.

9. Claims 4, 5, and 11-14, 17-19, 21, 22, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalman (Publication No. DE 19844864A1) in view of Lin et al. (U.S. Patent No. 5,863,882).

Kalman is relied upon as set forth in reference to claims 1, 2, 6, 7, 9, 10, 23, and 24 above. Kalman does not particularly disclose the composition of the liquid, in particular whether the liquid includes the enzymes amylase, protease and lipase.

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However, Kalman does disclose the liquid comprises soapy water, which provides cleanliness to the toilet. Lin discloses a method for cleaning toilets (column 1, lines 13-20) that uses a liquid containing the enzymes amylase, protease and lipase in order to reduce the growth of an indicator organism and degrade lipids, proteins, and carbohydrates (column 4, lines 40-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the liquid spray of Kalman to include enzymes amylase, protease, and lipase in order to reduce the growth of an indicator organism and degrade lipids, proteins, and carbohydrates as shown by Lin.

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kalman (Publication No. 198448864A1) in view of Lin et al. (U.S. Patent No. 5,863,882) as applied to claims 4, 5, and 11-14, 17-19, 21, 22, 27, and 28 above, and further in view of Mallett et al. (U.S. Patent No. 4,992,213).

Kalman in view of Lin is relied upon as set forth above. Kalman, as discussed above does not particularly disclose the composition of the liquid, in particular that the liquid includes the emulsifiers nonylphenol, propylene glycol. It is noted that Kalman does disclose the liquid is soapy water, which cleans the toilet. It is well known in the cleaner art to provide liquid spray cleaners with surfactants and emulsifiers. For example, Mallett show an example in the art of a general household, non-toxic cleaner, which includes nonylphenol as a surfactant and propylene glycol as an emulsifier in a water base. It would have been obvious at the time of the invention to provide the liquid spray cleaner in Kalman with conventionally known additives such as nonylphenol and

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propylene glycol in a water base in order to provide the cleaner with surfactant and emulsifying properties as exemplified by Mallett.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kalman (Publication No. 19844864A1) in view of Wagner (U.S. Patent No. 4,872,225).

Kalman is relied upon as set forth above. Kalman is silent with regards to the shape and angle of the spray pattern with respect to the originating region; therefore, it would have been necessary for one of ordinary skill in the art to look at the prior art for particulars of the spray pattern. Wagner discloses that it is known in the art to use a spray with a conical pattern at an angle of 40 degrees from the originating region during a deodorization and sanitation process (column 3, lines 13-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the spray in Kalman with a conical pattern at an angle of 40 degrees from the originating region as is considered known in the art and further exemplified by Wagner.

12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kalman (Publication No. 198448864A1) in view of Lin et al. (U.S. Patent No. 5,863,882) as applied to claims 4, 5, and 11-14, 17-19, 21, 22, 27, and 28 above, and further in view of Wagner (U.S. Patent No. 4,872,225).

Kalman in view of Lin is relied upon as set forth above. Kalman in view of Lin is silent with regards to the shape and angle of the spray pattern with respect to the originating region; therefore, it would have been necessary for one of ordinary skill in the art to look at the prior art for particulars of the spray pattern. Wagner discloses that it is known in the art to use a spray with a conical pattern at an angle of 40 degrees from

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the originating region during a deodorization and sanitation process (column 3, lines 13-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the spray in Kalman in view of Lin with a conical pattern at an angle of 40 degrees from the originating region as is considered known in the art and further exemplified by Wagner

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin C. Joyner whose telephone number is (571) 272-2709. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
GLADYS P. CORCORAN  
SUPERVISORY PATENT EXAMINER



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KCJ